By division of the equivalent weights by means of above-given figures one obtains
o ^ /^
=22-3 cubic metres H, --n-ig cubic metres 0,
1 R 6*805 1 ^^'^ eu^e me^res water-vapour,
from which figures one derives that
1 cubic metre 0 + 2 cubic metres H yield~2 cubic metres water-vapour . . . (12).
Inversely, if 1 cubic metre water-vapour is decomposed, 1 cubic metre H+J cubic metre 0 must be obtained.
The oxygen from the water-vapour carries no nitrogen with it, but H, and the relationship between the gases is,
0= . . . (13).
(e) PRODUCTION OF CO AND H FROM C AND STEAM. WATER-GAS I.
The action of steam on C is conceivable according to the following formula :—
C+H20=CO+2H wherefrom
12 kilogrammes C+18 kilogrammes H20=28 kilogrammes CO+2 kilogrammes H.
By division of the weights of gas by their weights under
1R normal conditions one finds 5^051 =:22"3 cubie metres H2°
9ft (vapour) j^j5=22'8 cubic metres C0> and
cubic metres H, or carbon+ 1 cubic metre steam—1 cubic metre CO+1 cubic metre H.
By use of the formulae (12) and (6), which are graphically shown in the Appendix, one can also more simply ascertain the result. If one considers, that is to say, that 1 cubic metre steam is resolved into its constituents, one obtains 0*5 cubic